

Fact Sheet



For Draft/Proposed Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-07700017-2012**
Application Received: **November 2, 2011**
Plant Identification Number: **077-00017**
Permittee: **Columbia Gas Transmission, LLC**
Facility Name: **Terra Alta Compressor Station**
Mailing Address: **1700 MacCorkle Avenue, SE, Charleston, WV 25314**

Revised: *N/A*

Physical Location: Terra Alta, Preston County, West Virginia
UTM Coordinates: 625.13 km Easting • 4364.38 km Northing • Zone 17
Directions: From I-79 take State Route 7 east to Terra Alta. Traveling east on State Route 7 to the town of Terra Alta, turn right onto Secondary Route 53. Proceed approximately 2 miles to the station which is located on the right.

Facility Description

Terra Alta Compressor Station is a natural gas transmission facility covered by Standard Industrial Classification (SIC) 4922. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station consists of six (6) heaters, five (5) 1100-hp and one (1) 174-hp natural gas fired reciprocating engines, one (1) 0.5 MMBtu/hr odorant flare, and numerous storage tanks of various sizes. On-site support equipment includes two (2) 300-hp emergency generators and one (1) heating system boiler at 3.6 MMBtu/hr.

Emissions Summary

| Plantwide Emissions Summary [Tons per Year] | | |
|--|----------------------------|------------------------------|
| Regulated Pollutants | Potential Emissions | 2011 Actual Emissions |
| Carbon Monoxide (CO) | 162.88 | 20.60 |
| Nitrogen Oxides (NO _x) | 647.21 | 222.46 |
| Particulate Matter (PM ₁₀) | 8.28 | 3.03 |
| Total Particulate Matter (TSP) | 8.28 | 3.03 |
| Sulfur Dioxide (SO ₂) | 0.25 | 0.07 |
| Volatile Organic Compounds (VOC) | 34.51 | 18.06 |
| <i>PM₁₀ is a component of TSP.</i> | | |
| Hazardous Air Pollutants | Potential Emissions | 2011 Actual Emissions |
| Formaldehyde | 11.76 | 4.29 |
| Other HAPs | 2.57 | 0.32 |
| Total HAPs | 14.33 | 4.61 |

Some of the above HAPs may be counted as PM or VOCs.

Title V Program Applicability Basis

This facility has the potential to emit 162.88 tons per year of Carbon Monoxide, 647.21 tons per year of Nitrogen Oxides, and 11.76 tons per year of Formaldehyde. Due to this facility's potential to emit over 100 tons per year of criteria pollutants and over 10 tons per year of a single HAP, Columbia Gas Transmission, LLC is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:

| | |
|------------------------------|---|
| 45CSR2 | PM limits for Indirect Heat Exchangers |
| 45CSR6 | Open burning prohibited |
| 45CSR10 | SO ₂ emission limits |
| 45CSR11 | Standby plans for emergency episodes |
| 45CSR16 | New Source Performance Standards |
| WV Code § 22-5-4 (a) (14) | The Secretary can request any pertinent information such as annual emission inventory reporting |
| 45CSR30 | Operating permit requirement |
| 45CSR34 | Emission Standards for HAPs |
| 40 C.F.R. Part 61 | Asbestos inspection and removal |
| 40 C.F.R. Part 82, Subpart F | Ozone depleting substances |

40 C.F.R. Part 60, Subpart Kb New Source Performance Standards for Storage Vessels
40 C.F.R. Part 63, Subpart ZZZZ National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

State Only:

45CSR4 No objectionable odors
45CSR17 Prevent And Control Particulate Matter Air Pollution From Materials. Handling, Preparation, Storage And Other Sources Of Fugitive Particulate Matter

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

| Permit or Consent Order Number | Date of Issuance | Permit Determinations or Amendments That Affect the Permit (<i>if any</i>) |
|-----------------------------------|---------------------|---|
| None | | |

Determinations and Justifications

This is a renewal permit. This facility was previously registered under General Permit R30-NGGP-2007 for Natural Gas Compressor Facilities. The Division of Air Quality did not renew the general permit for natural gas compressor facilities, therefore this facility's renewal will be issued as a source-specific permit. The source-specific permit includes various requirements which are potentially applicable to natural gas compressor stations. The applicable requirements column in the Section 1.0 Emission Units Table of the permit indicates which of the requirements in Sections 2.0 through 24.0 are applicable to each emissions unit. The following are the changes made from the existing registration:

45CSR6 – The existing odorant flare (FL1) was not listed in the previous permit but has been added to this permit along with applicable requirements from 45CSR6 and 45CSR10.

40 CFR Part 63, Subpart ZZZZ – Engines E01-E05 are existing, non-emergency, spark-ignition, 2-cycle, lean-burn greater than 500-hp constructed before December 19, 2002 and located at a major source of HAPs, therefore these engines have no requirements in accordance with 40 CFR §§63.6590(b)(3)(i) and 63.6600(c).

Engine 07 is an existing, non-emergency, spark-ignition, 4-cycle rich-burn between 100-hp and 500-hp constructed in 2004. Engines G1 and G2 are existing, emergency, spark-ignition, 4-cycle rich burn engines constructed in 1960. All three engines are subject to 40 CFR Part 63, Subpart ZZZZ and must be in compliance by October 19, 2013 in accordance with 40 CFR §63.6595(a) unless granted an extension by the USEPA. The requirements are listed in the Section 1.0 Emission Units Table of the permit.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

45CSR4 shall not apply to the following sources of objectionable odor until such time as feasible control methods are developed: Internal combustion engines. **[45CSR§4-7.1 State-Enforceable only.]**

45CSR10 - WVDEP has determined that 45CSR10 does not apply to gas fired engines. Also 45CSR10 is not applicable to the facility boiler and heaters because they are less than 10 mmBtu/hr.

45CSR21 - *To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds:* Terra Alta station is not located in Cabell, Kanawha, Putnam, Wayne, nor Wood County.

45CSR27 - *To Prevent and Control the Emissions of Toxic Air Pollutants:* Natural gas is included as a petroleum product and contains less than 5% benzene by weight. 45CSR§27-2.4 exempts equipment “used in the production and distribution of petroleum products providing that such equipment does not produce or contact materials containing more than 5% benzene by weight.”

40 C.F.R. 60 Subparts K,Ka - *Standards of Performance for Storage Vessels for Petroleum Liquids:* All tanks at Terra Alta station are below 40,000 gallons in capacity.

40 C.F.R. 60 Subpart KKK - *Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plant:* Terra Alta station is not engaged in the extraction or fractionation of natural gas liquids from field gas, the fractionation of mixed natural gas liquids to natural gas products, or both.

40 C.F.R. 60 Subpart Dc - *Boiler NSPS:* All boilers and heaters are less than 10 mmBtu/hr and exempt from this rule.

40 C.F.R. 60 Subpart IIII - *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines:* There are no compression ignition engines at the facility.

40 C.F.R. 60 Subpart JJJJ - *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines:* Engines at the facility were constructed, reconstructed, or modified prior to June 12, 2006.

40 C.F.R. 60 Subpart GG - *Standards of Performance for Stationary Gas Turbines:* There are no turbines at the facility.

40 C.F.R. 60 Subpart KKKK - *Standards of Performance for Stationary Combustion Turbines:* There are no turbines at the facility.

40 C.F.R. 63 Subpart DDDDD - *Boiler MACT:* All the boilers and heaters are less than 10 mmBtu/hr and constructed before Jan 13, 2003; therefore, they are classified as “Existing small gaseous fuel boilers and process heaters”; hence they are exempt per 40CFR§63.7506(c)(3) .

40 C.F.R. 63 Subpart YYYY - *National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines:* There are no turbines at the facility.

40 C.F.R. 63 Subpart HHH - *National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities:* The facility does not have a glycol dehydration unit and is therefore not subject to the requirements of this subpart.

40 C.F.R. 64 – Engines, boilers and process heaters do not have any add-on control; therefore, in accordance with 40 C.F.R § 64.2(a), CAM is not applicable to this facility.

Greenhouse Gas Permitting - This is a renewal Title V permit and there have been no modifications that would have triggered a PSD permit. Therefore, there are no applicable GHG requirements.

Request for Variances or Alternatives

None

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: September 12, 2012
Ending Date: October 12, 2012

All written comments should be addressed to the following individual and office:

Bobbie Scroggie
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Bobbie Scroggie
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1225 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

Not applicable.